

A detailed cross-sectional diagram of a magnetic recording head assembly, labeled 1A. The assembly consists of multiple layers and components. At the top is a cap layer (60) with a surface (57). Below it are two main pole pieces (38a and 38b) separated by a gap (36). These pole pieces are part of a larger structure (38) that includes a base layer (39) and a coil layer (40). A write current path is indicated by arrows 41 and 42. The pole pieces are positioned above a recording medium (20) which has a surface opposing the recording medium. The recording medium is composed of several layers (21-29) with different hatching patterns. A specific layer is labeled 24. A gap or recessed area in the recording medium is labeled 29a. Other labels include 55, 56, 58, and 59. A coordinate system at the bottom right shows Z as the vertical axis (pointing up), X as the horizontal axis (pointing right), and Y as the depth axis (indicated by a circle with a dot).



FIG. 3

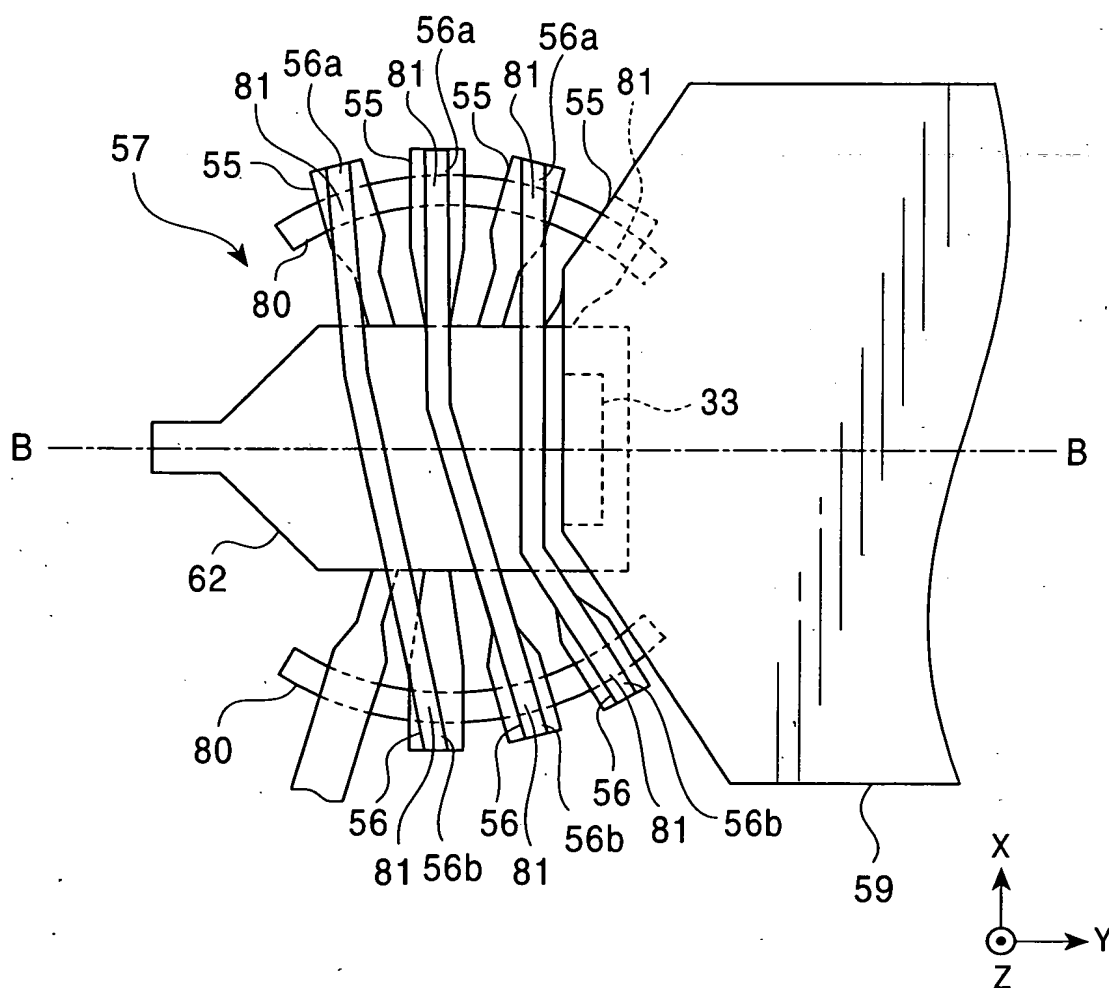
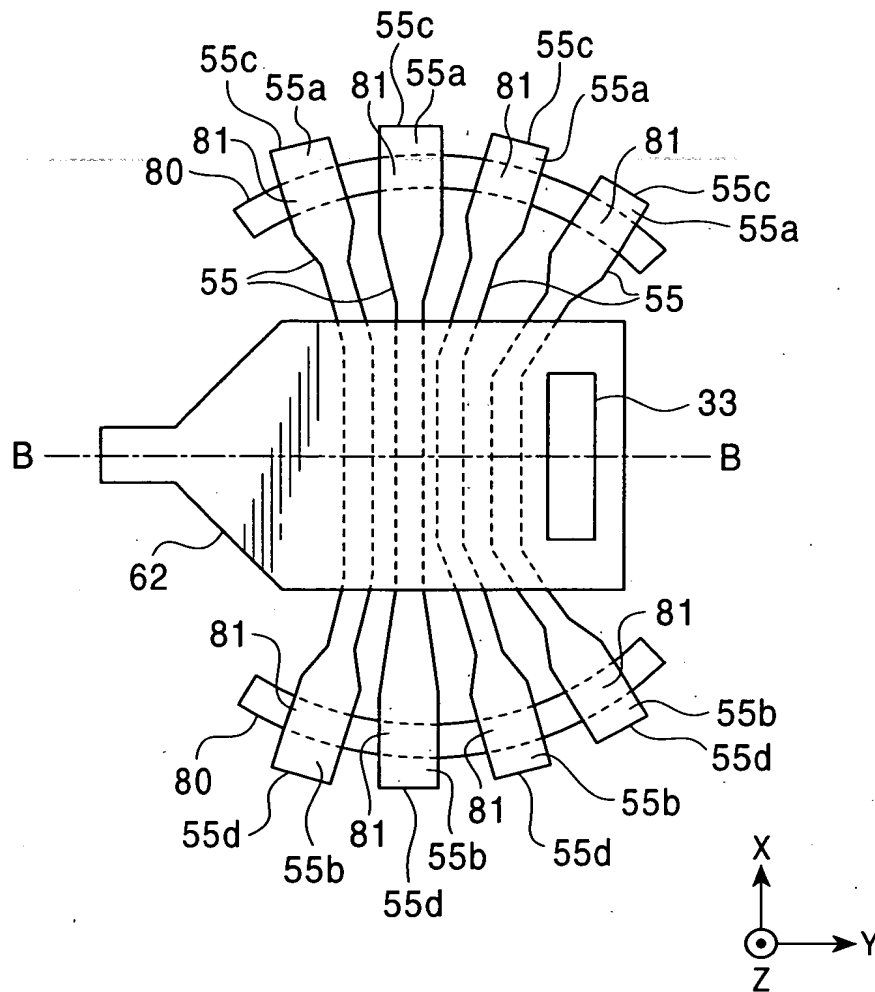


FIG. 4



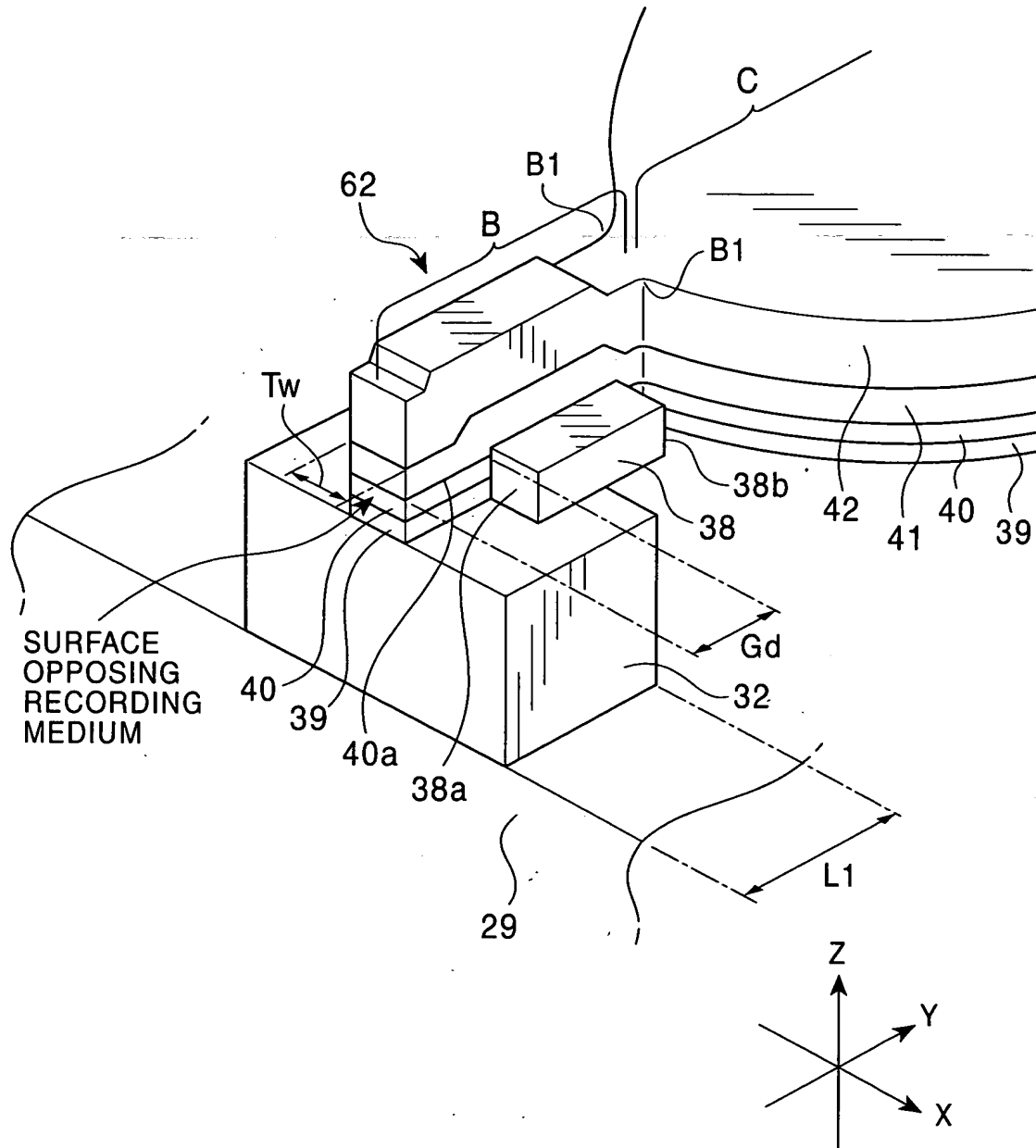
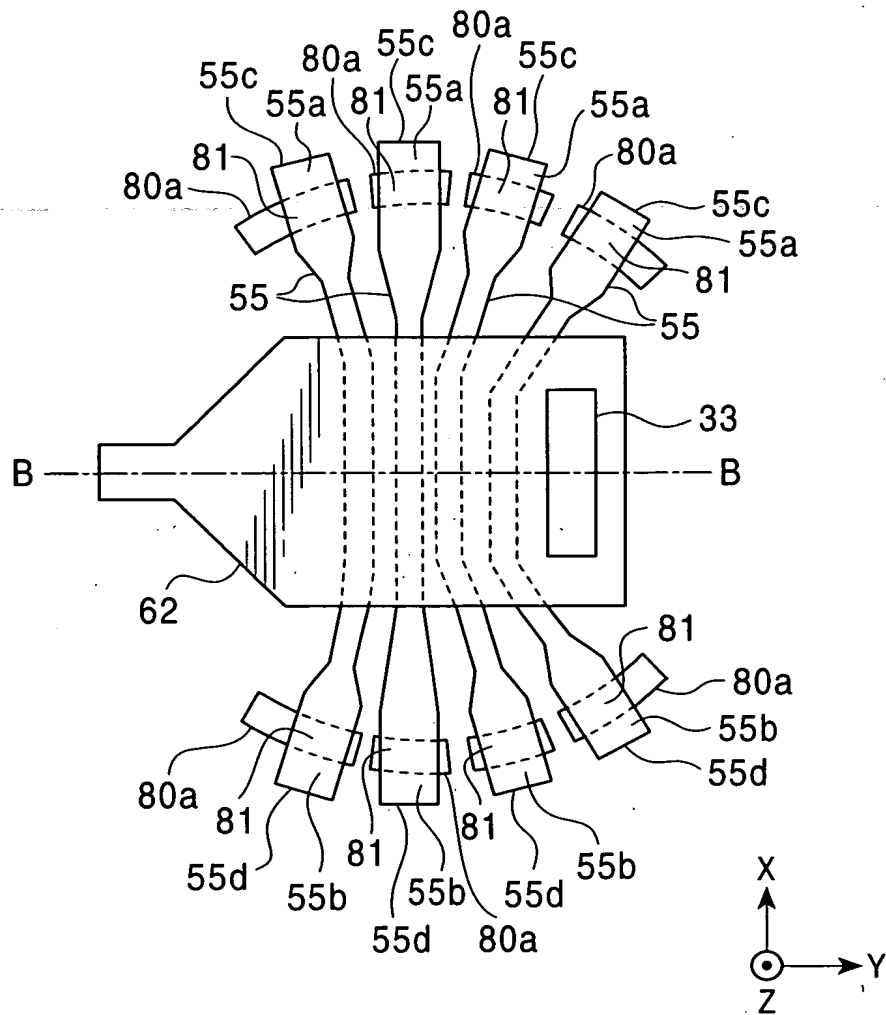


FIG. 6



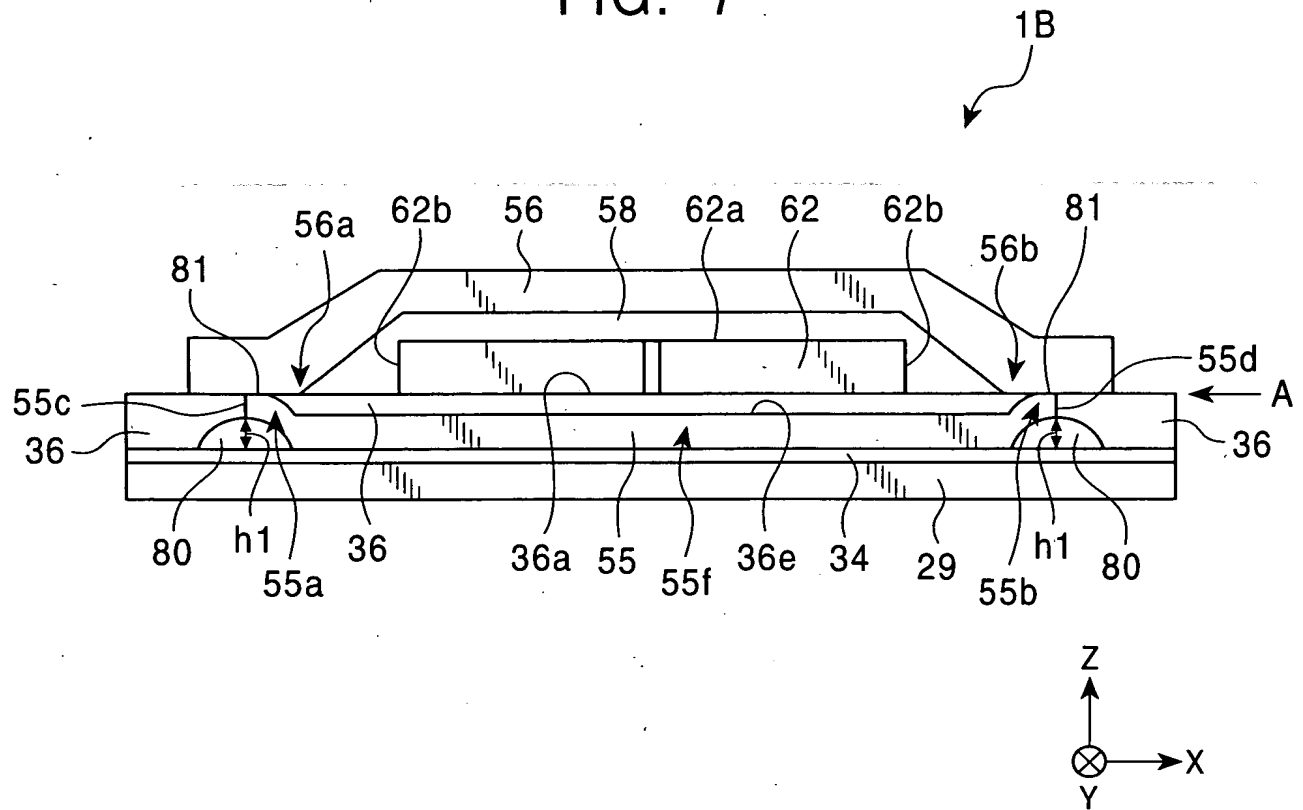


FIG. 8

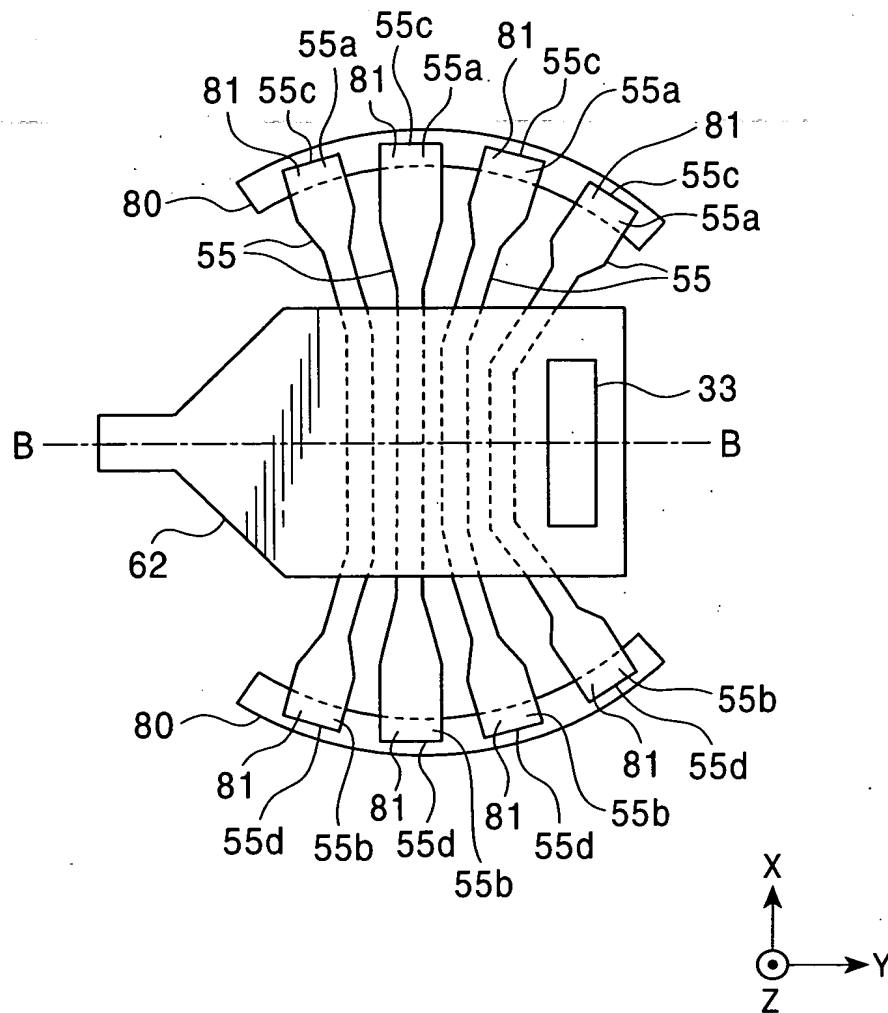




FIG. 9

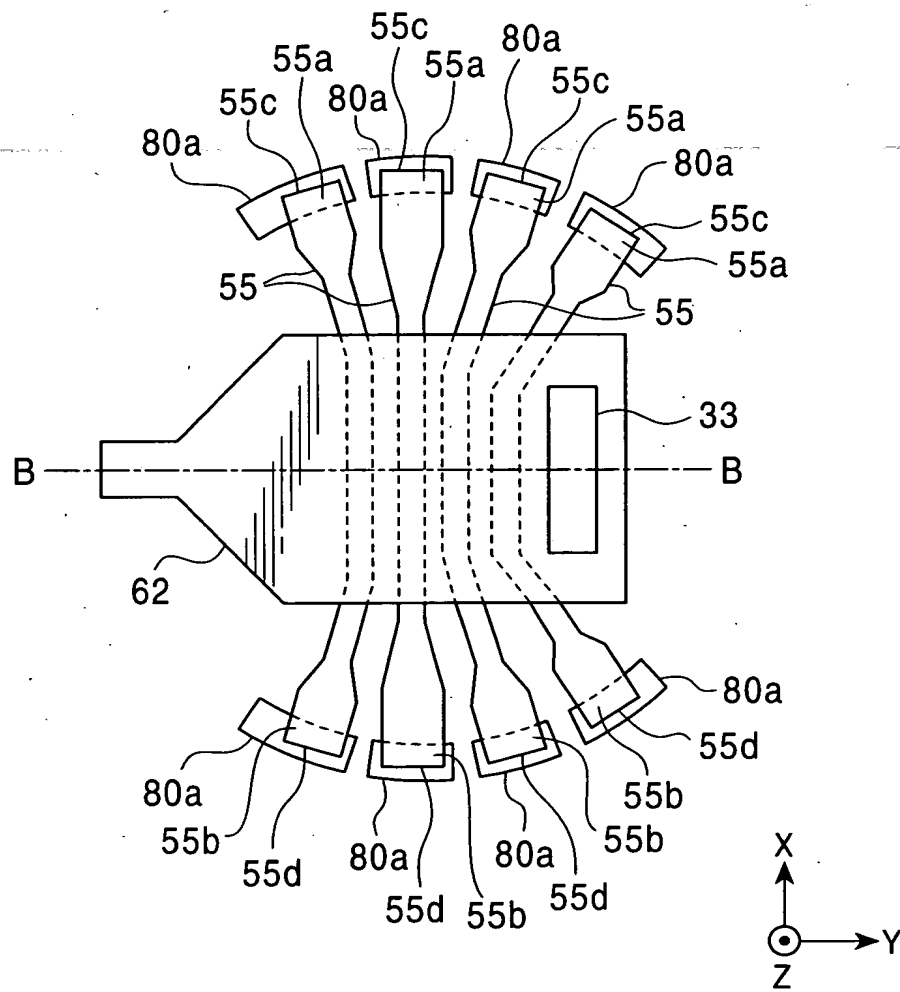


FIG. 10

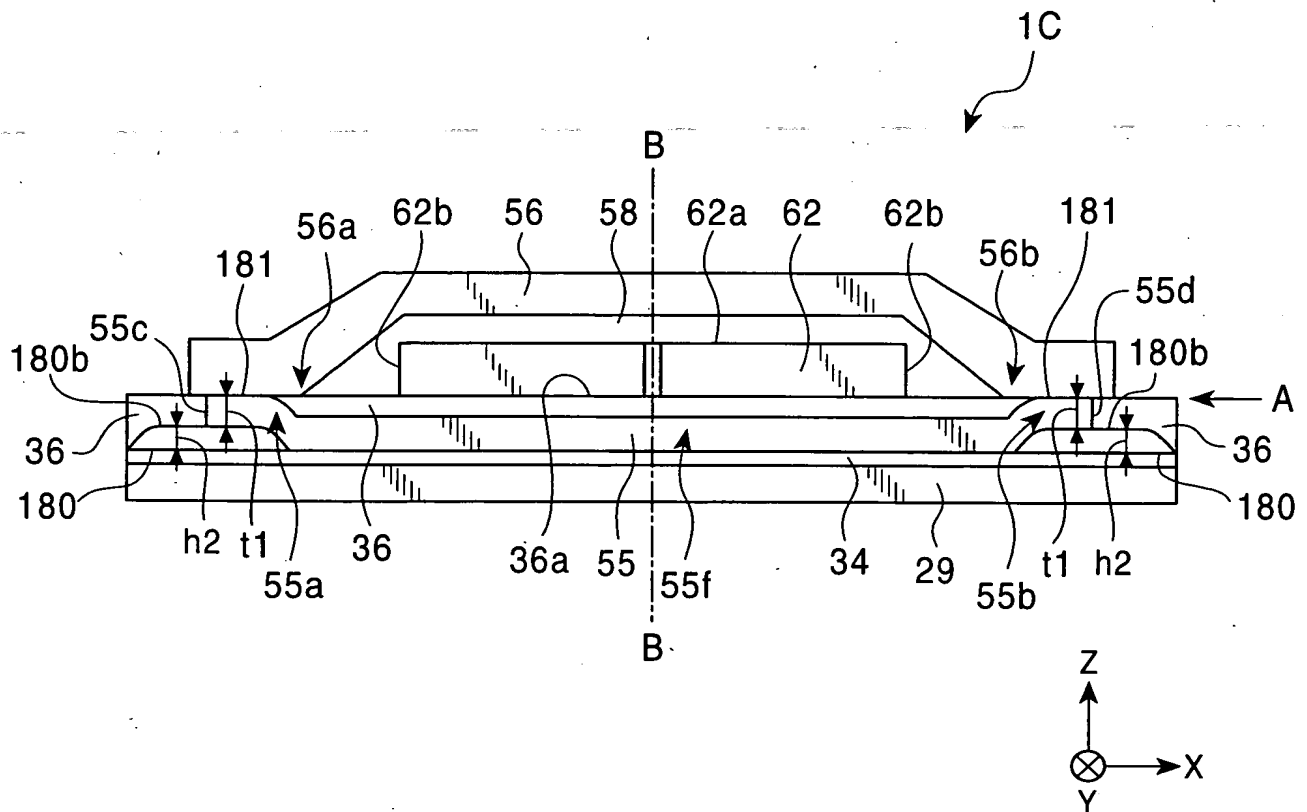


FIG. 11

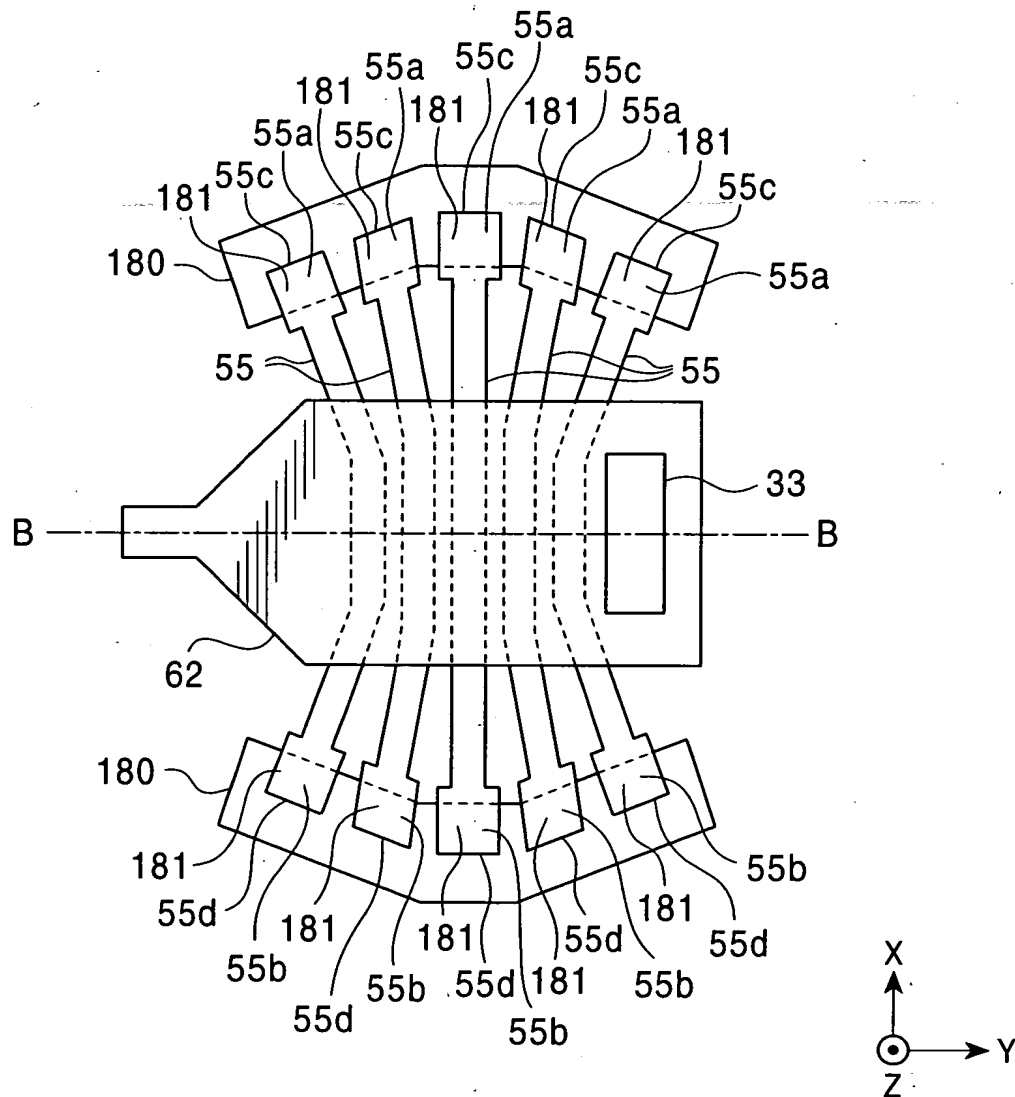
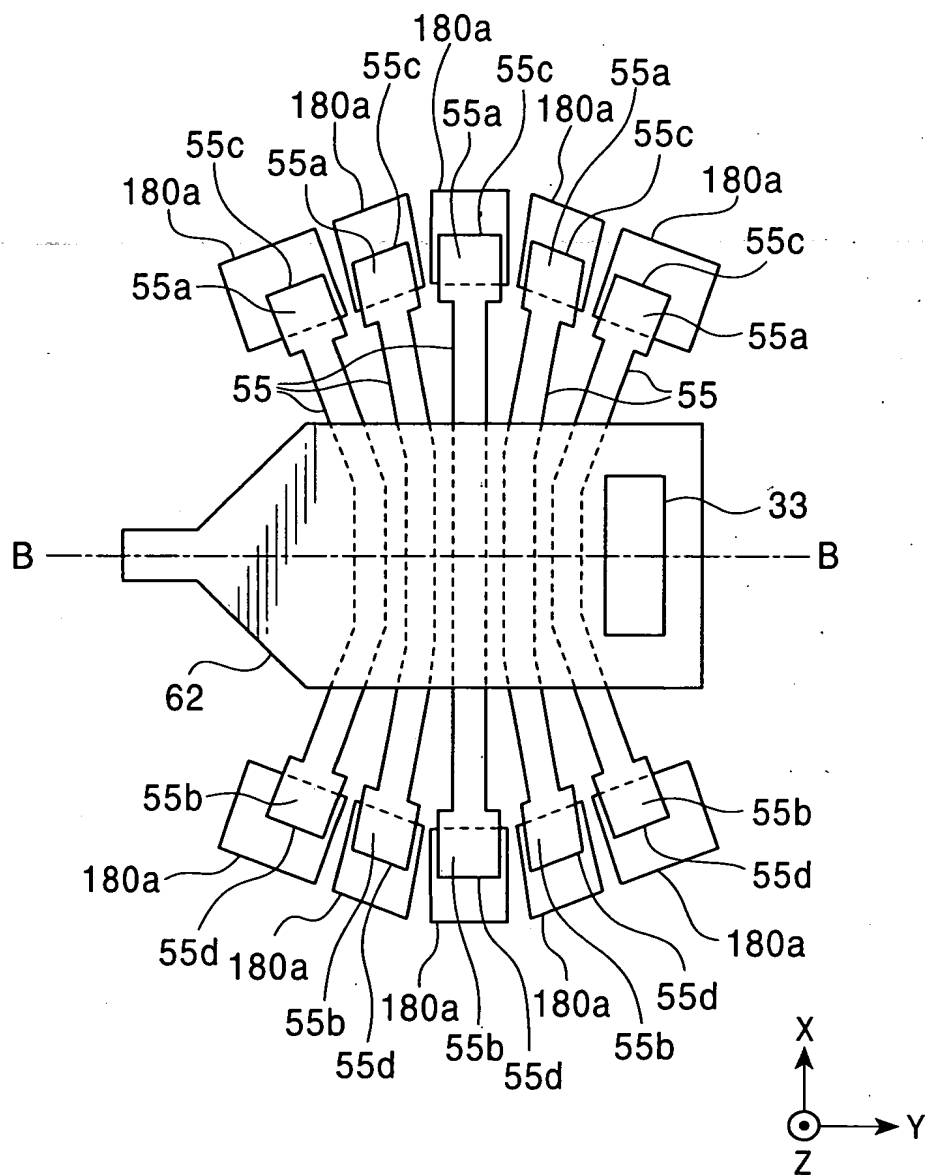


FIG. 12



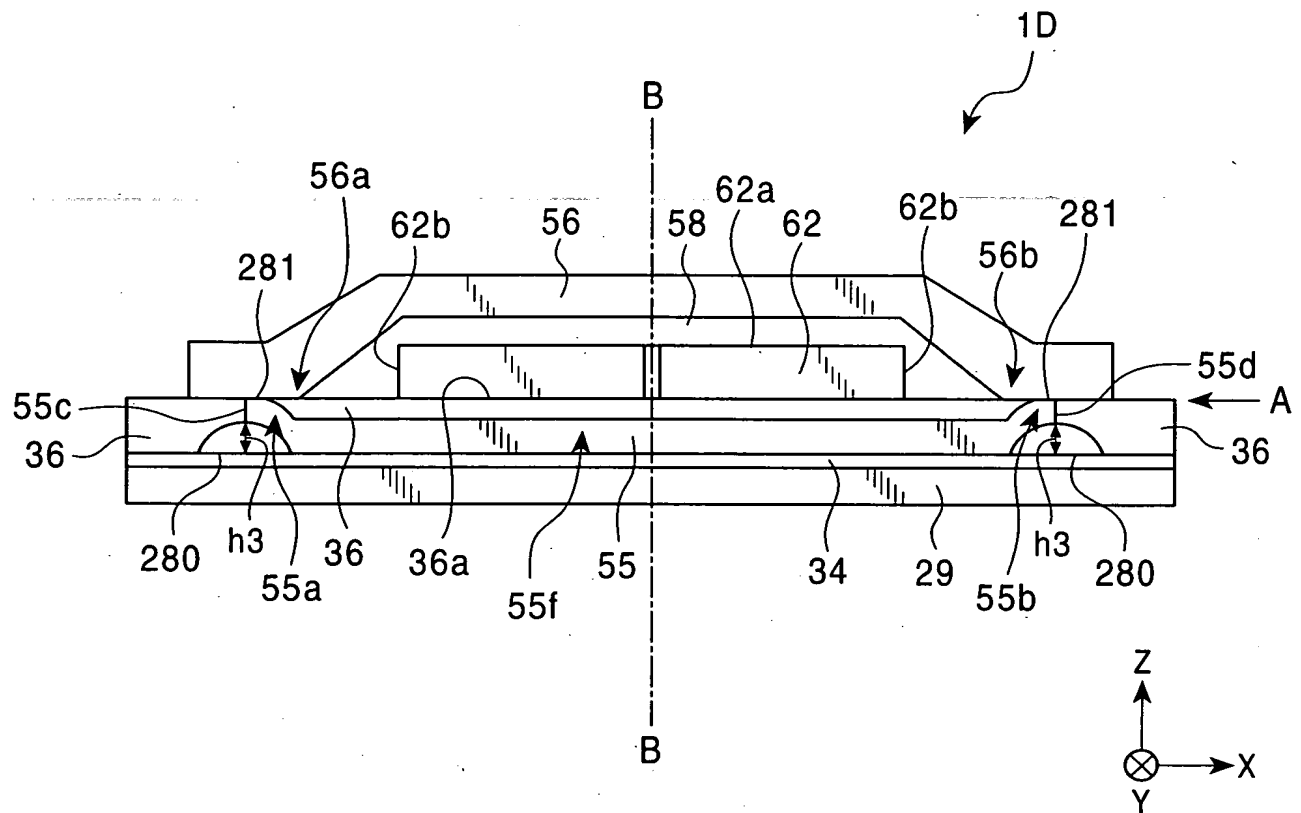


FIG. 14

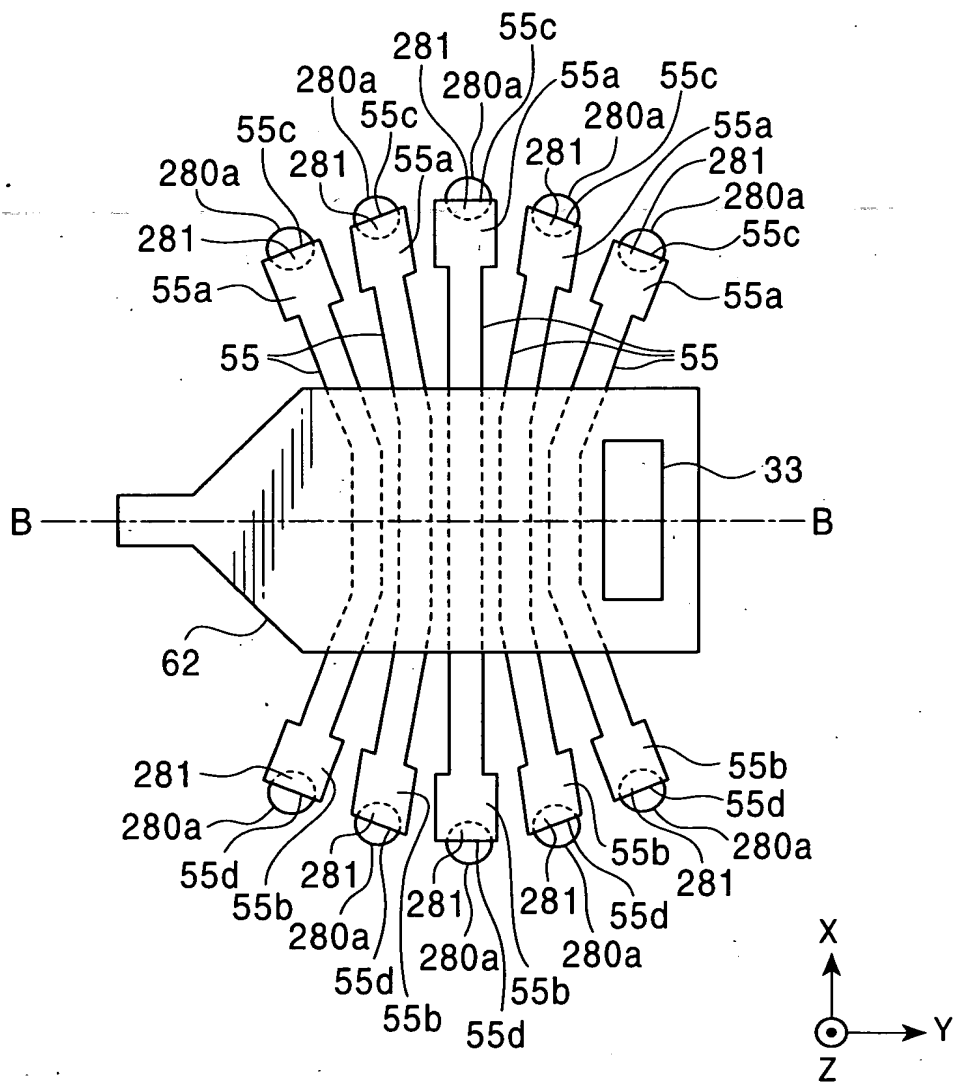


FIG. 15

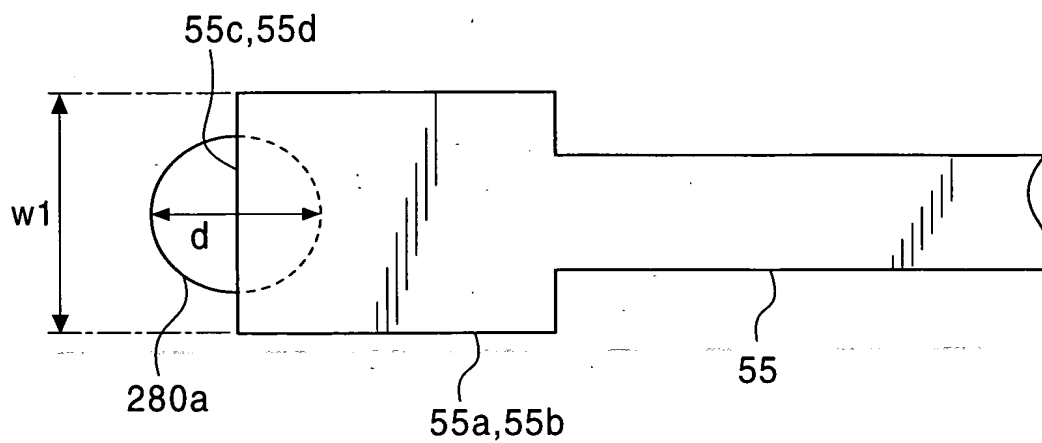


FIG. 16

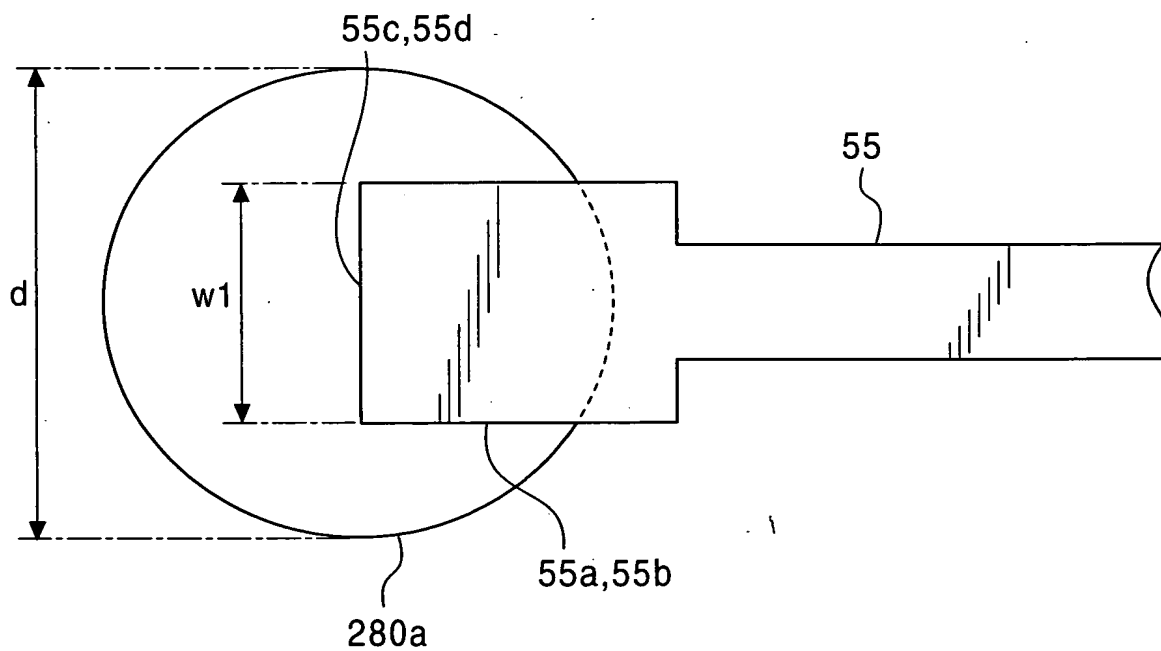


FIG. 17

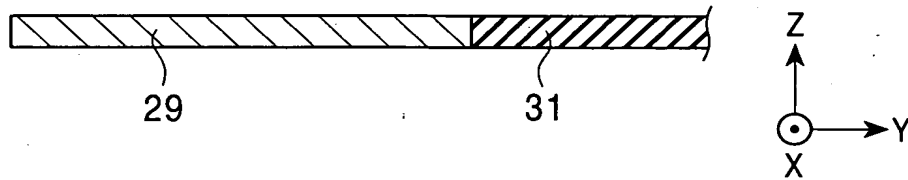


FIG. 18

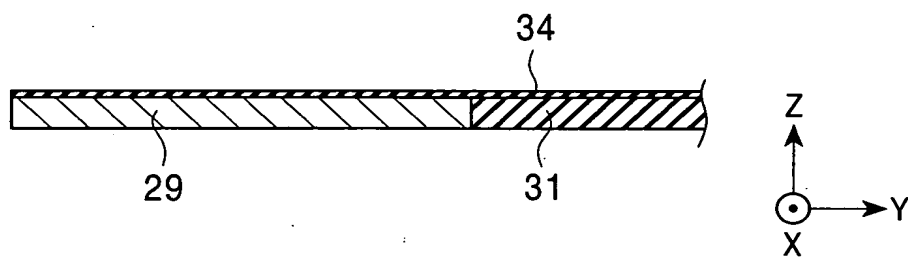
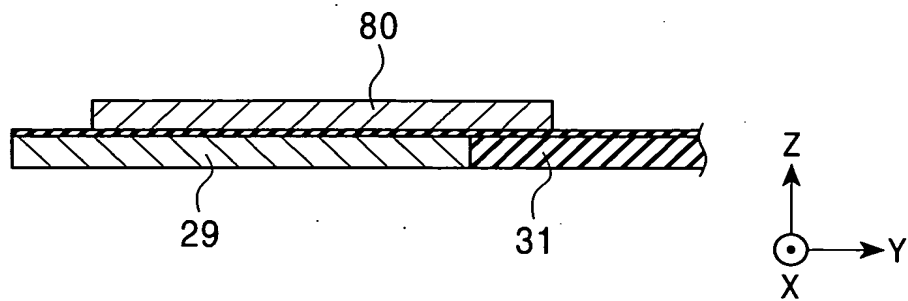


FIG. 19





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FIG. 20

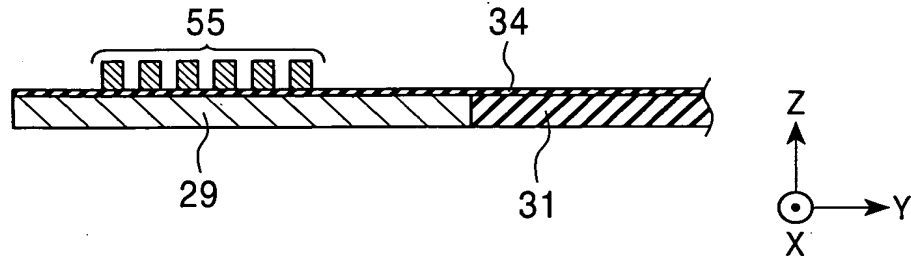


FIG. 21

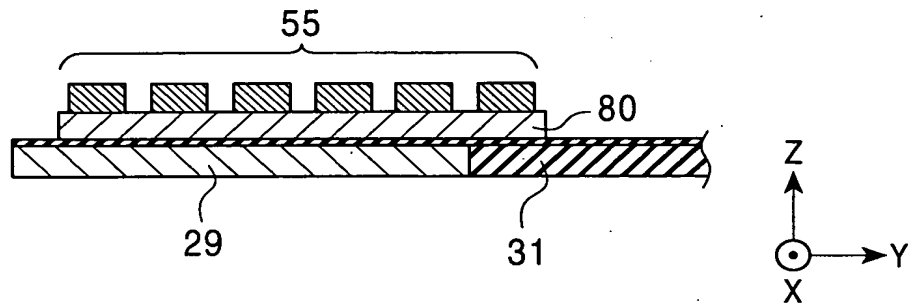
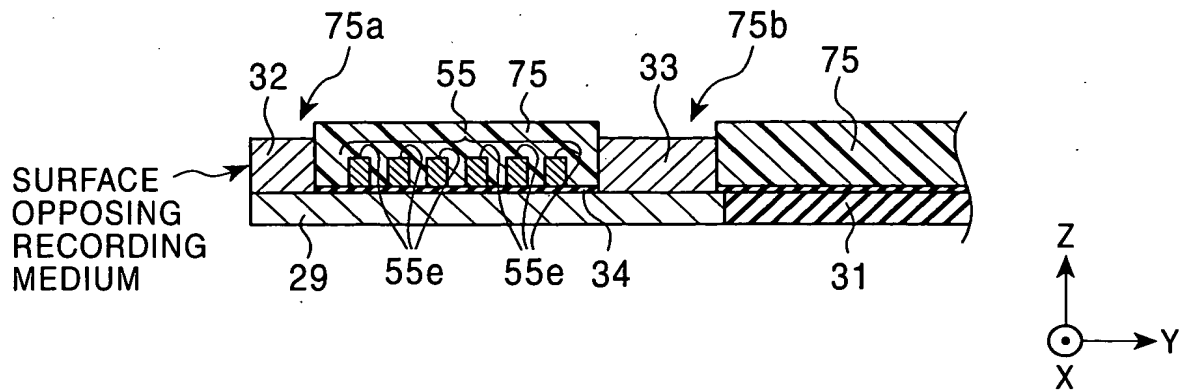


FIG. 22



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FIG. 23

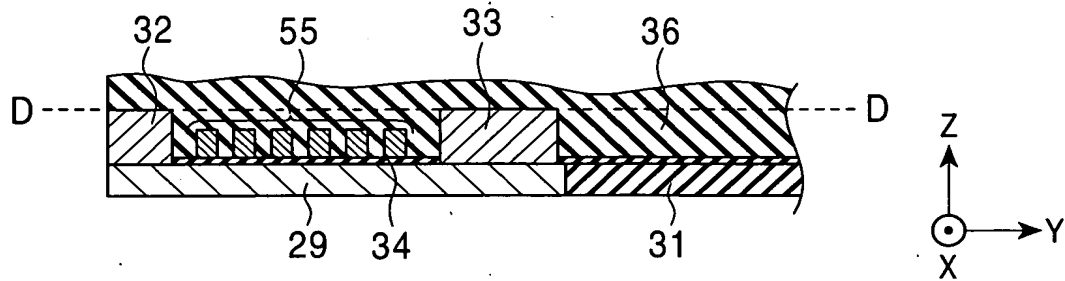


FIG. 24

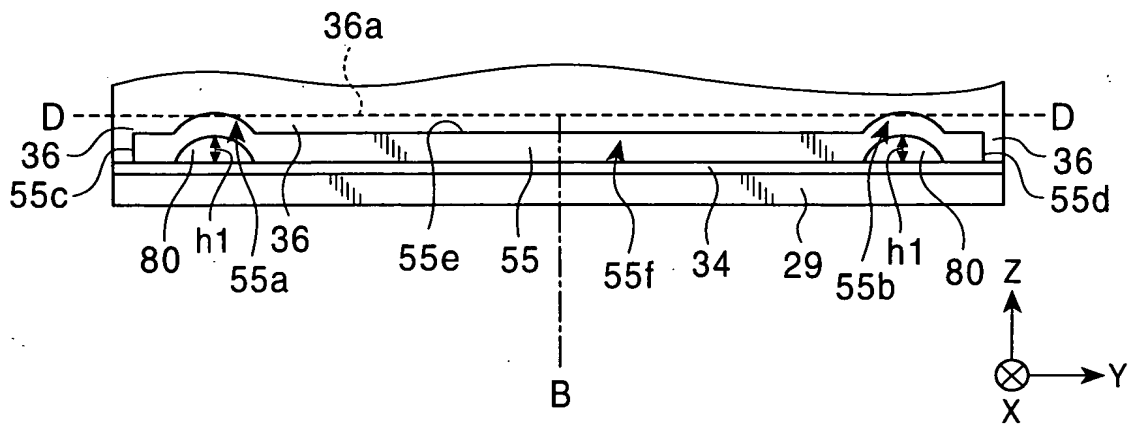


FIG. 25

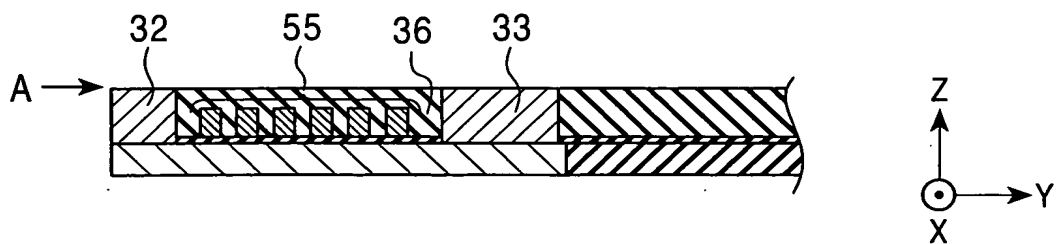


FIG. 26

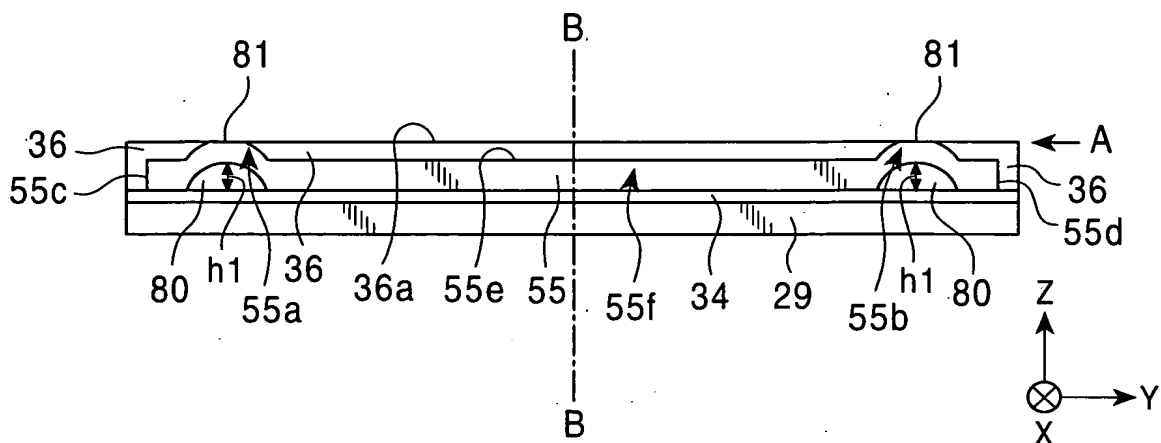


FIG. 27

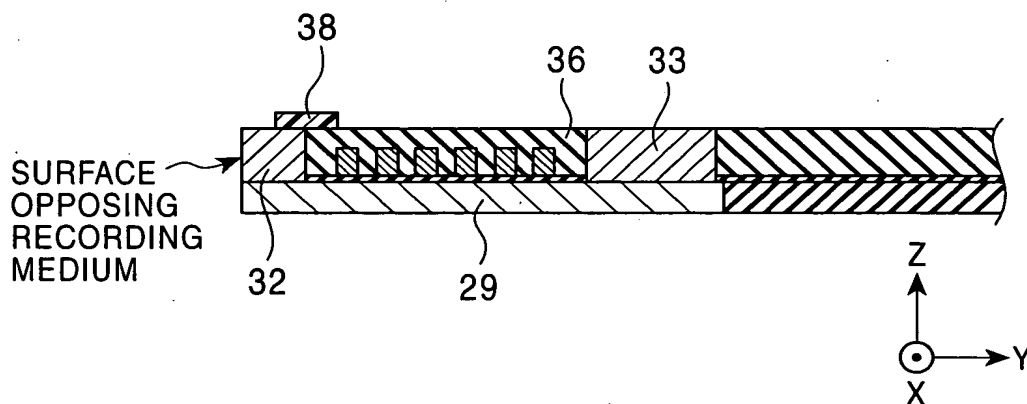
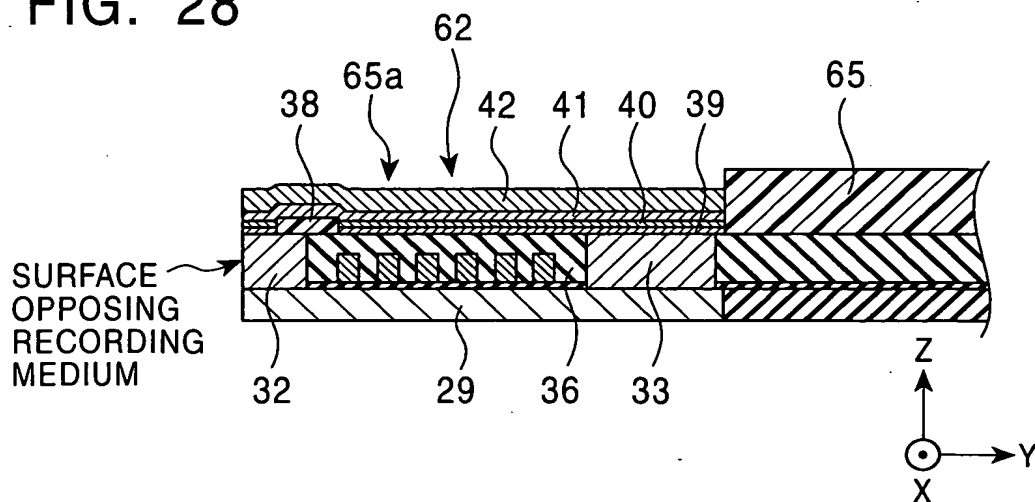


FIG. 28



[illegible]





FIG. 32

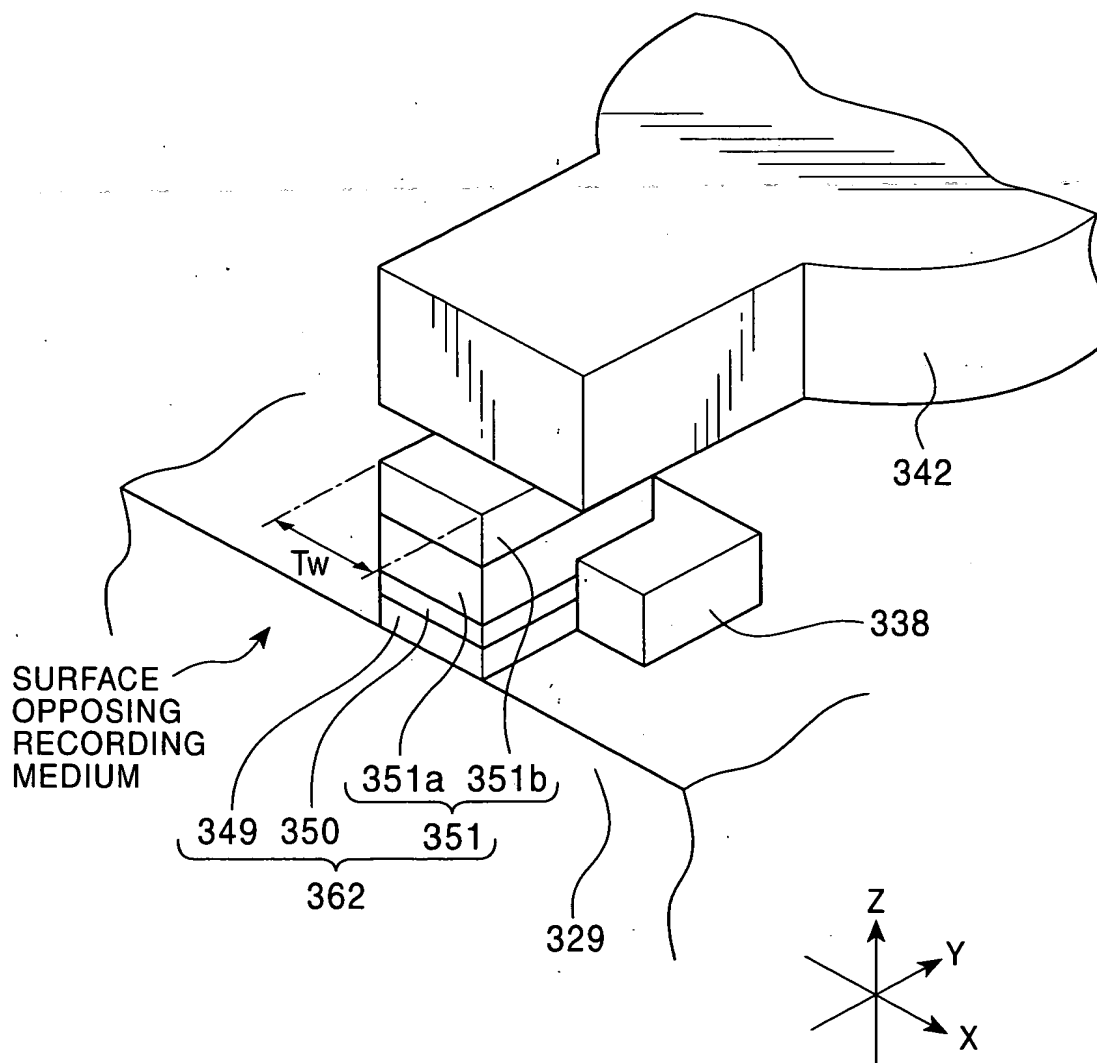


FIG. 33  
PRIOR ART

